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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,325	10/07/2003	Kazuhide Uchida	12-022-DIV	2671

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EXAMINER

TRIEU, THERESA

ART UNIT PAPER NUMBER

3748

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,325

Applicant(s)

UCHIDA ET AL.

Examiner

Theresa Trieu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/174,820.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date October 7, 2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to the applicants' election filed on July 15, 2004.

Receipt and entry of Applicants' Preliminary Amendment filed on October 7, 2003 is acknowledged.

Claims 1 and 15-19 have been canceled. Claims 2, 20 and 23-25 have been amended. Claims 26-28 have been added. Claims 2-14 and 20-28 are pending in this application.

Election/Restrictions

1. Applicant's election without traverse of the species of Figs. 1, 2 and 36 filed on July 15, 2004 is acknowledged, claims 2 and 4-6 being readable thereon. Claims 3, 7-14, 20-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 and 6, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Claim 5 is rejected by virtue of its dependence on claim 4.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Sakashita et al. (Sakashita) (Patent Number 4,645,437).

Regarding claim 2, as shown in Figs. 6 and 7, Sakashita disclose a scroll compressor provided with a housing; a shaft (36) having a crank part; a movable scroll (27), which have a spiral shaped blade (27a) and an end plate and is driven to orbit by the crank part (37); and a fixed scroll (26), which has a spiral shaped blade (26a) that meshes with the movable scroll and an end plate and is fixed to the housing, such that, when the movable scroll is driven to orbit by the crank part of the shaft, a plurality of working chambers (28) formed between the blade of the movable and fixed scrolls move toward the center, and the volumes of the working chambers (28) are successively reduced and fluid is compressed in the working chambers, the scroll compressor comprising:

- a middle housing (23) provided as part of the housing behind the movable scroll (27) for supporting a thrust load in an axial direction of the shaft;
- at least one ring-shaped groove (44) forming a backpressure chamber (43) in one of a back surface of the end plate of the movable scroll (27) and a front surface of the middle housing (23) facing and supporting the same;

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- a passage (45) for introducing high-pressure fluid into the ring-shaped groove (44); and

- at least one ring-shaped seal ring (47a, 47b) fitted movably in the ring-shaped groove (44) wherein the section shape of the at least one ring-shaped seal ring slightly inclines (see col. 4, line 40-48; Fig. 7) in the ring-shaped groove (44).

Allowable Subject Matter

4. Claims 4-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Prior Art

The IDS (PTO-1449) filed on October 7, 2003 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents.

Hugenroth et al. (Patent Number 6,077,057) discloses a scroll compressor with back pressure seal protection during reverse rotation.

Bush et al. (Patent Number 6,146,119) disclose a pressure actuated seal.

Sun et al. (Patent Number 6,171,088) discloses a scroll compressor with slanted back pressure seal.

Sun (Patent Number 6,224,059) discloses a controlled contact pressure for scroll compressor seal.

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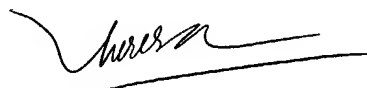
Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 703-308-6434. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E Denion can be reached on 703-308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TT



Theresa Trieu
Patent Examiner
Art Unit 3748